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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.
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09/203,166 12/01/98 BEALL

G CGW-235.1

EXAMINER

MM91/0122

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FAIRFIELD CT 06430

ULLAH, A
ART UNIT

PAPER NUMBER

2874
DATE MAILED:

01/22/01

Please find below and/or attached an Office communication concerning this application or proceeding.

Commissioner of Patents and Trademarks

Office Action Summary	Application No.		Applicant(s)	
	09/203,166		BEALL ET AL.	
	Examiner		Art Unit	
	AKM E. Ullah		2874	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136 (a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 18 September 2000.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☐ Claim(s) 41-61 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) 41-50 is/are allowed.
- 6) ☐ Claim(s) 51-54, 56-58 and 60-61 is/are rejected.
- 7) ☐ Claim(s) 55 and 59 is/are objected to.
- 8) ☐ Claims _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are objected to by the Examiner.
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. § 119

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgement is made of a claim for domestic priority under 35 U.S.C. & 119(e).

Attachment(s)

- | | |
|---|--|
| 15) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 18) <input type="checkbox"/> Interview Summary (PTO-413) Paper No(s). _____ |
| 16) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 19) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 17) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449) Paper No(s) <u>8 & 12 & 12 1/2</u> | 20) <input type="checkbox"/> Other: |

Detailed Action

Applicant's cooperation is requested in correcting any errors of which applicant may become aware in the specification.

Priority Claimed by Applicant

***This application is a continuation of 09/101,630
filed on 07-14-1998***

which is a 371 of PCT/US96/13062 filed on 08-07-1996

Provisional application no. 60/010,058 filed on 01-16-1996

Claims 1-40 have been canceled in this application. Claims 41-61 are pending in this application.

Claims 41-50 are allowed over the prior art as of record.

Claims 52 and 59 are objected.

Claims 51-54, 56-58 and 60-61 are rejected.

In response to the applicant's amendment received on November 04, 1999, all the changes to the claims have been entered.

Applicant's arguments with respect to claims 41-61 have been considered but are deemed to be moot in view of the new grounds of rejections. The previously applied rejections of claims 41-61 are withdrawn, as is the indicated allowability of claims 54-59 and the objected claim 52. The following rejections are now applied as the result of further consideration.

35 USC 103 Rejections

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 51- 54, 56-58 and 60-61 are rejected under 35 U.S.C. 103 (a) as being unpatentable over Kashyap et al (U.S.P.NO. 4,923,278)

Kashyap et al discloses an optical device comprising a negative expansion substrate having an upper surface and an optical fiber is mounted on the substrate at least two spaced apart locations. The optical fiber has positive coefficient of thermal expansion. For details see figure 3, claims 1 &2, column 6 lines 57-68 through lines 1- 9 of column 7. Kashyap et al teaches that the optical fibers which are attached by a clamps 14 and 15 which may be a releasable type such as screw clamps and instead of the releasable clamps an adhesive compound may be employed to attach the fiber to the substrate.

Although the reference (Kashyap et al) fails to disclose the optical fiber component having a grating in such way that grating lies between and at a distance from each end of the substrate. However, in lines 40-46 of column 6, the reference et al teaches that optical fibers disclosed in the reference are expected to be useful in sensor applications or a fiber external cavity single- mode lasers.

Note that the use of grating in the fiber as an efficient way to detect the temperature though frequency measurement of use of the fiber with the grating in a single mode lasers.

It would have been obvious to one of ordinary skill in the art at the time the invention was made to use the well known techniques in order to provide a grating on the fiber of Kashyap et al between the two fixed location for the purpose of advantageously providing an efficient temperature sensor or a distributed feedback single mode laser, as claimed, if so desired.

Any other differences between the claimed subject matter and the references are such that the claimed subject matter would be obvious to a person of ordinary skill in the art.

Claims 51-54 and 60-61 are also rejected under 35 USC 103 (a) as being unpatentable over (Material Chemistry and Physics, vol. 42, 1995 pages 214-215) A.K. Chu et al.

Chu et al disclose an athermal waveguide device comprising a negative expansion substrate made of Ta_2O_5 and a positive thermal expansion optical component made of SiOx is fixed on the substrate at least two spaced apart locations. Note that SiOx layer is fixed onto the substrate at least two locations. The SiOx layer is construed as the optical component, since it's apart of an optical waveguide. The gist of the claim invention is clearly taught by the reference. The reference clearly mentioned the teachings of the claimed invention.

It would have been obvious to one of ordinary skill in the art at the time the invention was made to use the teachings of Chu et al to provide an athermal optical fiber grating device comprising a negative expansion substrate having an upper surface and first and second ends and an optical fiber is fixed to the substrate in upper surface at least two spaced apart locations and a grating defined in the optical fiber between and at a distance from each end, as claimed, if so desired.

Applicant's arguments with respect to claims 41-61 have been considered but are moot in view of the grounds of rejection.

Claims Objected

Claims 52 and 59 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Claims Allowed

Claims 41- 50 are allowed over the prior art as of record.

This action is not made final.

Contact Information

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Akm E. Ullah whose telephone number is (703) 308-4885. The examiner can normally be reached on Monday through Thursday from 6.30 a.m. to 5.00 p.m.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the Group receptionist whose telephone number is (703) 308-0956.


Akm E. Ullah
Primary Examiner